UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/080,972	02/21/2002	Steven P. Hiebert	10017067 -1	1591

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EXAMINER
WANG, THOMAS D

ART UNIT	PAPER NUMBER
2122	

DATE MAILED: 01/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/080,972	HIEBERT, STEVEN P.
	Examiner	Art Unit	
	Thomas D. Wang	2122	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>21 February 2002</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-19</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-19</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>21 February 2002</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>February 21, 2002</u>.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____ .

DETAILED ACTION

1.   This action is responsive to the application filed February 21, 2002.

2.   Claims 1-19 have been examined.

Priority

3.   The priority date considered for this application is February 21, 2002.

Specification

4.   The disclosure is objected to because of the following informalities: in page 8,

line 18, the use of "content 176" is not clear as to which Figure of the drawings is being

referred to, as content 176 is used in both FIG. 3 and 4; in page 11 line 5, the use of

"the interpretive transform 123", which is inconsistent to what is noted in FIG. 2, appears

to be intended as "the interpretive transform 126; the same note also applies to line 14 –

"the interpretive instruction 150", line 20 -- "the interpreted prototype transform 126" --,

page 12 line 18 -- "the interpretive transform 123" and "the prototype transform 126" --.

        Appropriate correction is required.

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by
> another filed in the United States before the invention by the applicant for patent or (2) a patent
> granted on an application for patent by another filed in the United States before the invention by the
> applicant for patent, except that an international application filed under the treaty defined in section
> 351(a) shall have the effects for purposes of this subsection of an application filed in the United States
> only if the international application designated the United States and was published under Article 21(2)
> of such treaty in the English language.

6.   Claims 1-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Sluiman

(US 2002/0194220, hereinafter Sluiman).

7.   With respect to claim 1, Sluiman discloses *a transformation method, comprising:*

- *providing a transformation processor* (a rendering/expanding engine) (E.g. see

  FIG. 1; page 3 [0031], a conventional computing device or server executing

  software);

- *providing a prototype* (extracting) *transform* (Extractor 20/Transform F1) *and an*

  interpretive (expanding) *transform* (Expander 50/Transform F2) (E.g. see FIG. 1

  Extractor 20 and Expander 50; page 3 [0032]; page 4 [0042]); *and*

- *transforming at least one source document* (data model – CDM A/CDM B) *into an*

  output document (CDM C) *with the transformation processor by interpreting a*

  number of interpreted instructions in the prototype transform with a number of

  interpretive instructions from the interpretive transform (E.g. see FIG. 2; page 3

  [0032] data extractor is capable of receiving multiple Complex Data Models –

  CDMs; [0033] a complex data model is a schema; [0034] data extractor 20 is

  capable of interpreting; page 4 [0041] and [0042], the fundamental data expander

  50 applies the transform F2...to expand it into its full CDM equivalent

  representative of a reconciliation; the form or syntax of the instructions contained

  the second transform F2 is usually the same as in transform F1).

8.   With respect to claim 2, Sluiman further discloses *wherein comprises processing*

a number of transformation specific instructions in the prototype transform, where the

interpretive instructions are transformation generic (E.g. see page 3 [0033], complex

data models are typically in the form of electronic data files; page 3 [0034], the

fundamental data extractor is capable of interpreting XSLTs...the transform may be in

some alternative forms, such as an Awk or PERL program; page 4 [0042], the process

of expanding a reconciled fundamental data set into a corresponding complex data

model; see Abstract, the reconciled fundamental data set is then expanded into a

corresponding reconciled complex data model ... the transforms are capable of

providing automatic enforcement of complex data model data abstractions and value

dependencies during reconciliation; and page 4 [0042], the form or syntax of the

instructions contained the second transform may be capable of configuring the

fundamental data expander to automatically recognize and enforce data abstractions or

value dependencies existing in the complex data models). Although the term *generic* is

not explicitly referred to, the disclosed method of automatically expanding data, per the

use of data abstractions and value dependencies within its model, is broadly interpreted

as a generic procedure applicable to its kind upon performing data transformation.).

9.   With respect to claim 3, Sluiman further discloses *wherein comprising drawing an*

association (link) *among the prototype transform, the interpretive transform, and the at*

least one source (input) *document* (E.g. see FIG. 1; page 3 [0036], is capable of

displaying non-divergent fundamental data...the semantic view has an input for

receiving fundamental data sets from link and an output...the generated semantic

domain representation is usually graphically based).

10.   With respect to claim 4, Sluiman further discloses *wherein comprises providing a*

processing command to transform the at least one (see Fig. 1 CDM Input 22; Fig. 2

CDM A and CDM B) *source document into the output document* (see Fig. 1 Reconciled

CDM Output 52 and Fig. 2 CDM C), *the processing command to be applied to the*

transformation processor, the processing command referencing the prototype transform,

the interpretive transform, and the at least one source document (E.g. see FIG. 4 step

402 – Input complex data models A and B; step S418 – Apply transform F2 to expand

fundamental data set C' into corresponding complex data model C; step S420 – Output

complex data Model C).

11.   With respect to claim 5, Sluiman further discloses *wherein comprises applying*

the interpretive instructions to each element of the prototype transform (E.g. see page 4

[0042], the second transform F2 is a set of instructions which controls the process of

expanding a reconciles fundamental data set into a corresponding complex data

model...thus essentially serves a complementary purpose to that served by first

transform F1; page 3 [0034] the first transform F1...is capable of interpreting XSLTs;

Fig. 1 link 18; page 4 [0040] the reconciliation machine is capable of receiving

fundamental data to be reconciled from link 18).

12.   With respect to claim 6, Sluiman further discloses *wherein comprises generating*

a portion (subset) *of the output document based upon a direct element in the prototype*

transform (E.g. see FIG. 1 Reconciled CDM Output 52; page 5 [0048], the result of the

data extraction is the generation of fundamental data sets...that fundmental data sets

may represent...a subset thereof).

13. With respect to claim 7, Sluiman further discloses *wherein the step of applying*

the interpretive instructions to each element of the prototype transform further

comprises:

- *detecting* (examining and determine) *a match between an element in the*

  prototype transform and a template embodied in the interpretive instructions (E.g.

  see FIG. 2:240; page 5 [0052], the reconciled fundamental data set is converted

  to a corresponding metalanguage file; page 11 [0096-0097], the fundamental

  data expander examines received fundamental data set C; ...determined that

  received fundamental data set C contains a reconciles divergent class name...the

  complex data model which provides that file names shall mirror *(match)* their

  contained class names); and

- *processing the element with the template to transform at least one source*

  element in the at least one source document into a portion (subset) *of the output*

  document (E.g. see FIG. 2; page 5 [0048], the result of the data extraction is the

  generation of fundamental data sets...that fundamental data sets may

  represent...a subset thereof).

14. With respect to claim 8, Sluiman further discloses *wherein comprises writing*

(copying) *a literal value* (a fundamental data set) *included in the interpreted instructions*

into the output document (E.g. see page 7 [0063], capable of interpreting XSL

transforms; page 10 [0093], the reconciliation engine may reference the fundamental

data sets...during this process for the purpose of obtaining metalanguage fragments for

copying into fundamental data set C').

15.   With respect to claim 9, Sluiman further discloses *wherein comprises writing attributes to the portion of the output document* (E.g. see page 11 [0097-0098], the fundamental data expander sets the value of the attribute...the reconciled complex data model C is output from the fundamental data expander).

16.   With respect to claim 10, Sluiman discloses *a computer program embodied in a computer readable medium to perform a transformation, comprising:*

- *an interpretive transform* (E.g. see FIG. 1 Transform F2 and Fundamental Data Expander 50);

- *a prototype transform to be interpreted using the interpretive transform* (E.g. see FIG.1 Transform F1, Fundamental Data Extractor 20 and Reconciled Fundamental Data 42);

- *at least one source document associated with the prototype transform* (E.g. see FIG. 2 Complex Model Domain – CDM A / CDM B);

- *a transformation processor* (E.g. see FIG. 1 CDM Reconciliation System 10); and

- *code that initiates a transformation of the at least one* (FIG. 1 CDM Input 22 and FIG. 2 Complex Model Domain – CDM A / CDM B) *source document into an output document* (FIG. 1 Reconciled CDM output 52) *with the transformation processor, the transformation processor interpreting a number of interpreted instructions in the prototype transform with a number of interpretive instructions from the interpretive transform* (E.g. see FIG. 1 Transform F2; page 8 [0074] the transform is performed in the fundamental data extractor and is initiated by a reconciling individual through interaction with a system user interface; page 4

[0042] the second transform F2 is a set of instructions which controls the process

of expanding a reconciles fundamental data set into a corresponding complex

data model...thus essentially serves a complementary purpose to that served by

first transform F1; page 3 [0032] data extractor is capable of receiving multiple

Complex Data Models – CDMs; [0034] data extractor 20 is capable of

interpreting).

17.   With respect to claim 11, Sluiman further discloses *wherein the interpretive*

instructions of the interpretive transform are transformation generic (E.g. see Abstract,

the reconciled fundamental data set is then expanded into a corresponding reconciled

complex data model ... the transforms are capable of providing automatic enforcement

of complex data model data abstractions and value dependencies during reconciliation;

and page 4 [0042], the form or syntax of the instructions contained the second

transform may be capable of configuring the fundamental data expander to

automatically recognize and enforce data abstractions or value dependencies existing in

the complex data models). Although the term *generic* is not explicitly referred to, the

disclosed method of automatically expanding data, per the use of data abstractions and

value dependencies within its model, is broadly interpreted as a generic procedure

applicable to its kind upon performing data transformation.

18.   With respect to claim 12, Sluiman further discloses *wherein the interpreted*

instructions that are transformation specific (E.g. see Abstract, a first transform is

initially applied to received divergent complex data models in order to extract

fundamental data representing selected divergent aspects of the complex data models

that are to be reconciled...input representative of a reconciliation of the fundamental

data by a reconciling individual is received; see also col. 5 [0051], the reconciliation

essentially comprises a selection of a preferred version of). Although the term *specific* is

not explicitly used, the fact that extracting fundamental data only from the selected

divergent aspects for further reconciliation is broadly interpreted as a specific procedure

applicable to its kind upon performing data transformation.

19.   With respect to claim 13, Sluiman further discloses *wherein comprises code that*

applies a transformation command to the transformation processor (E.g. see FIG. 1

CDM Reconciliation System 10), *the command referencing the at least one source*

document (FIG. 1 CDM Input 22 and FIG. 2 Complex Model Domain – CDM A / CDM

B), *the prototype transform, and the interpretive transform* (E.g. see page 8 [0074], the

transform is performed in the fundamental data extractor and is initiated by a reconciling

individual through interaction with a system user interface; col. 4 [0040], the

reconciliation engine receives instructions from the user input mechanism representing

reconciliation choices and interprets these instructions to generate a reconciled

fundamental data set accordingly).

20.   With respect to claim 14, Sluiman discloses *a transformation system, comprising;*

*   *a processor circuit having a processor and a memory* (E.g. see page 3 [0031],

    the system is typically a conventional computing device or server executing

    software...the software may be loaded into the memory of the system – a

    processor is considered inherently included as part of a computing device); and

- *transformation logic stored in the memory and executable by the processor, the transformation logic comprising:*

  o *an interpretive transform* (E.g. see FIG. 1 Transform F2 and Fundamental Data Expander 50);

  o *a prototype transform to be interpreted using the interpretive transform* (E.g. see FIG.1 Transform F1, Fundamental Data Extractor 20 and Reconciled Fundamental Data 42);

  o *a transformation processor* (E.g. see FIG. 1 CDM Reconciliation System 10); and

  o *logic that initiates a transformation of at least one* (FIG. 1 CDM Input 22 and FIG. 2 Complex Model Domain – CDM A / CDM B) source *document into an output* (FIG. 1 Reconciled CDM output 52) *document with the transformation processor, the transformation processor interpreting a number of interpreted instructions in the prototype transform with a number of interpretive instructions from the interpretive transform, wherein an association* (a graphical link) *is drawn between the at least one source document and the prototype transform* (E.g. see page 3 [0036] the semantic view has an input for receiving fundamental data sets from link and an output...the generated semantic domain representation is usually graphically based; page 4 [0042] the second transform F2 is a set of instructions which controls the process of expanding a reconciles fundamental data set into a corresponding complex data model...thus

essentially serves a complementary purpose to that served by first

transform F1; page 3 [0032] data extractor is capable of receiving multiple

Complex Data Models – CDMs; [0034] data extractor 20 is capable of

interpreting).

21.   With respect to claim 15, Sluiman further discloses *wherein the interpretive*

instructions of the interpretive transform are transformation generic (this claim reads on

the same limitations as claim 11).

22.   With respect to claim 16, Sluiman further discloses *wherein the interpreted*

instructions of the prototype transform are transformation specific (this claim reads on

the same limitations as claim 12).

23.   With respect to claim 17, Sluiman further discloses *wherein comprises logic that*

applies a transformation command (instruction) *to the transformation processor, the*

command referencing the at least one source document, the prototype transform, and

the interpretive transform (E.g. see page 8 [0074], transform is initiated by a reconciling

individual through interaction with a system user interface; page 4 [0040] the

reconciliation engine receives instructions from the user input mechanism...interprets

these instructions; [0042] the second transform F2...the process of expanding a

reconciled fundamental data set into a corresponding complex data model).

24.   With respect to claim 18, Sluiman discloses *a transformation system, comprising:*

- *means for providing a number of interpreted instructions, the interpreted*

   instructions being transformation specific (this claim reads on the same

   limitations as claim 11);

- *means for providing a number of interpretive instructions, the interpretive instructions being transformation generic* (this claim reads on the same limitations as claim 12); *and*

- *means for transforming at least one source document into an output document by interpreting the interpreted instructions with the interpretive instructions with reference to the at least one source document* (E.g. see page 3 [0034], the fundamental data extractor is capable of interpreting XSLTs...if the extractor is incapable of interpreting, the transform may be in some alternative form such as an Awk or PERL program; page 4 [0042], the syntax of the instruction contained the second transform F2 is usually the same as the form or syntax used in transform F1 and is dependent on the metalanguage).

25.   With respect to claim 19, Sluiman further discloses *wherein comprises means for referencing the at least one source document, the prototype transform, and the interpretive transform to initiate a transformation of the at least one source document into an output* (FIG. 1 Reconciled CDM output 52) *document reference* (this claim reads on the same limitations as claim 17).

Conclusion

26.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

27.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas D. Wang whose telephone number is (571) 272-7954. The examiner can normally be reached on 8:00-4:30 M-F.
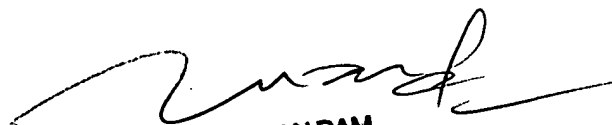
If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Tuan Dam can be reached on (571) 272-3695. The fax phone number for

the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit 2122

December 27, 2004

TDW

TUAN DAM
SUPERVISORY PATENT EXAMINER